

32692

Customer Number

Patent  
Case No.: 52320US018

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: ALLEN, RICHARD C.  
Application No.: 10/614775      Group Art Unit:  
Filed: July 7, 2003      Examiner: Unknown  
Title: AN OPTICAL FILM WITH CO-CONTINUOUS PHASES

---

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

June 2, 2004  
Date

Cheryl A. Saver  
Signed by: Cheryl A. Saver

Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97, and 1.98, enclosed is a completed Form PTO-1449, citing references submitted for consideration by the Examiner. Copies of any cited foreign patents, non-patent literature, and unpublished US application documents are enclosed. Pursuant to the waiver in the Pre-OG Notice, dated July 11, 2003, copies of US patents and published US patent applications are no longer required and are not enclosed. It is respectfully requested that the Examiner initial and return the enclosed Form PTO-1449 to indicate that each reference has been considered.

It is believed that no fee is due; however, in the event a fee is required, please charge the fee to Deposit Account No. 13-3723.

If a first Office Action on the merits has been mailed prior to the mailing date of this document, please charge the fee for consideration of an Information Disclosure Statement set

DC 1

forth in 37 CFR § 1.17(p), and if necessary, please charge any additional fees, or credit any overpayment to Deposit Account No. 13-3723.

Respectfully submitted,

2 June 2004  
Date

By: Stephen C. Jensen  
Stephen C. Jensen, Reg. No.: 35,207  
Telephone No.: (651) 736-3369

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Filing Date

July 7, 2003

First Named Inventor

Allen, Richard C.

Art Unit

Examiner Name

Attorney Case Number

52320US018

(Use as many sheets as necessary)

Page 1 of 6

## U.S. Patent Documents

Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	(This field is not required) Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known) (Add Kind Code after patent No. when available)			
	A1	US- 2,246,087	6/1941	Bailey et al.	
	A2	US- 2,604,817	7/1952	Schupp, Jr.	
	A3	US- 3,124,639	3/1964	Kahn	
	A4	US- 3,213,753	10/1965	Rogers	
	A5	US- 3,438,691	4/1969	Makas	
	A6	US- 3,480,502	11/1969	Schrenk	
	A7	US- 3,499,960	3/1970	Macek et al.	
	A8	US- 3,561,841	2/1971	Norvaisa et al.	
	A9	US- 3,565,985	2/1971	Schrenk et al.	
	A10	US- 3,585,255	6/1971	Sevenich	
	A11	US- 3,610,729	10/1971	Rogers	
	A12	US- 3,711,176	1/1973	Alfrey, Jr. et al.	
	A13	US- 3,759,647	9/1973	Schrenk et al.	
	A14	US- 3,806,558	4/1974	Fischer	
	A15	US- 3,847,585	11/1974	Chisholm	
	A16	US- 3,860,036	1/1975	Newman, Jr.	
	A17	US- 4,025,688	5/1977	Nagy et al.	
	A18	US- 4,031,169	6/1977	Morris	
	A19	US- 4,036,912	7/1977	Stricharczuk	
	A20	US- 4,046,840	9/1977	Carman et al.	
	A21	US- 4,048,358	9/1977	Shanks	
	A22	US- 4,130,535	12/1978	Coran et al.	
	A23	US- 4,247,578	1/1981	Skinner et al.	
	A24	US- 4,250,074	2/1981	Foscante et al.	
	A25	US- 4,267,289	5/1981	Froix	
	A26	US- 4,268,127	5/1981	Oshima et al.	
	A27	US- 4,302,553	11/1981	Frisch et al.	

\*Examiner:

Date Considered:

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Substitute for form 1449A/PTO (modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Page 2 of 6	<b>Application Number</b>	<b>10/614775</b>
	<b>Filing Date</b>	<b>July 7, 2003</b>
	<b>First Named Inventor</b>	<b>Allen, Richard C.</b>
	<b>Art Unit</b>	
	<b>Examiner Name</b>	
	<b>Attorney Case Number</b>	<b>52320US018</b>

U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	(This field is not required) Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known) (Add Kind Code after patent No. when available)			
	A28	US- 4,310,584	1/1982	Cooper et al.	
	A29	US- 4,330,447	5/1982	Lundberg et al.	
	A30	US- 4,389,515	6/1983	DeLaMare et al.	
	A31	US- 4,446,305	5/1984	Rogers et al.	
	A32	US- 4,520,189	5/1985	Rogers et al.	
	A33	US- 4,521,588	6/1985	Rogers et al.	
	A34	US- 4,525,413	6/1985	Rogers et al.	
	A35	US- 4,567,227	1/1986	Kiss	
	A36	US- 4,680,353	7/1987	Ishihara et al.	
	A37	US- 4,688,900	8/1987	Doane et al.	
	A38	US- 4,717,225	1/1988	Feth et al.	
	A39	US- 4,720,426	1/1988	Englert et al.	
	A40	US- 4,871,784	10/1989	Otonari et al.	
	A41	US- 5,000,898	3/1991	Gabriel et al.	
	A42	US- 5,011,643	4/1991	Yang	
	A43	US- 5,016,991	5/1991	Mason	
	A44	US- 5,077,121	12/1991	Harrison et al.	
	A45	US- 5,088,807	2/1992	Waters et al.	
	A46	US- 5,094,788	3/1992	Schrenk et al.	
	A47	US- 5,094,793	3/1992	Schrenk et al.	
	A48	US- 5,103,337	4/1992	Schrenk et al.	
	A49	US- 5,122,905	6/1992	Wheatley et al.	
	A50	US- 5,122,906	6/1992	Wheatley	
	A51	US- 5,126,880	6/1992	Wheatley et al.	
	A52	US- 5,138,474	8/1992	Arakawa	
	A53	US- 5,149,578	9/1992	Wheatley et al.	
	A54	US- 5,157,526	10/1992	Kondo et al.	

<b>*Examiner:</b>	<b>Date Considered:</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

<b>Substitute for form 1449A/PTO (modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Page 3 of 6	<b>Application Number</b>	<b>10/614775</b>
	<b>Filing Date</b>	<b>July 7, 2003</b>
	<b>First Named Inventor</b>	<b>Allen, Richard C.</b>
	<b>Art Unit</b>	
	<b>Examiner Name</b>	
	<b>Attorney Case Number</b>	<b>52320US018</b>

U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	(This field is not required) Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known) (Add Kind Code after patent No. when available)			
	A55	US- 5,166,817	11/1992	Ota et al.	
	A56	US- 5,178,812	1/1993	Sanford et al.	
	A57	US- 5,188,760	2/1993	Hikmet et al.	
	A58	US- 5,202,938	4/1993	Man et al.	
	A59	US- 5,211,878	5/1993	Reiffenrath et al.	
	A60	US- 5,217,794	6/1993	Schrenk	
	A61	US- 5,221,982	6/1993	Faris	
	A62	US- 5,222,795	6/1993	Hed	
	A63	US- 5,233,465	8/1993	Wheatley et al.	
	A64	US- 5,235,443	8/1993	Barnik et al.	
	A65	US- 5,238,738	8/1993	Miller	
	A66	US- 5,245,456	9/1993	Yoshimi et al.	
	A67	US- 5,262,894	11/1993	Wheatley et al.	
	A68	US- 5,268,225	12/1993	Isayev	
	A69	US- 5,269,995	12/1993	Ramanathan et al.	
	A70	US- 5,278,694	1/1994	Wheatley et al.	
	A71	US- 5,294,657	3/1994	Melendy et al.	
	A72	US- 5,301,046	4/1994	Konuma et al.	
	A73	US- RE34,605	5/1994	Schrenk et al.	
	A74	US- 5,316,703	5/1994	Schrenk	
	A75	US- 5,319,478	6/1994	Fijnfschilling et al.	
	A76	US- 5,337,174	8/1994	Wada et al.	
	A77	US- 5,366,781	11/1994	Coburn et al.	
	A78	US- 5,389,324	2/1995	Lewis et al.	
	A79	US- 5,394,255	2/1995	Yokota et al.	
	A80	US- 5,422,756	6/1995	Weber	
	A81	US- 5,448,404	9/1995	Schrenk et al.	

<b>*Examiner:</b>	<b>Date Considered:</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

<b>Substitute for form 1449A/PTO (modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Page 4 of 6	<b>Application Number</b>	<b>10/614775</b>
	<b>Filing Date</b>	<b>July 7, 2003</b>
	<b>First Named Inventor</b>	<b>Allen, Richard C.</b>
	<b>Art Unit</b>	
	<b>Examiner Name</b>	
	<b>Attorney Case Number</b>	<b>52320US018</b>

U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	(This field is not required) Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known) (Add Kind Code after patent No. when available)			
	A82	US- 5,469,278	11/1995	Takahara et al.	
	A83	US- 5,486,935	1/1996	Kalmanash	
	A84	US- 5,486,949	1/1996	Schrenk et al.	
	A85	US- 5,612,820	3/1997	Schrenk et al.	
	A86	US- 5,625,473	4/1997	Kondo et al.	
	A87	US- 5,629,055	5/1997	Revol et al.	
	A88	US- 5,686,979	11/1997	Weber et al.	
	A89	US- 5,699,188	12/1997	Gilbert et al.	
	A90	US- 5,721,603	2/1998	De Vaan et al.	
	A91	US- 5,744,534	4/1998	Ishiharada et al.	
	A92	US- 5,751,388	5/1998	Larson	
	A93	US- 5,767,935	6/1998	Ueda et al.	
	A94	US- 5,770,306	6/1998	Suzuki et al.	
	A95	US- 5,783,120	7/1998	Ouderkirk et al.	
	A96	US- 5,793,456	8/1998	Broer et al.	
	A97	US- 5,808,794	9/1998	Weber et al.	
	A98	US- 5,825,542	10/1998	Cobb, Jr. et al.	
	A99	US- 5,825,543	10/1998	Ouderkirk et al.	
	A100	US- 5,867,316	2/1999	Carlson et al.	
	A101	US- 5,882,774	3/1999	Jonza et al.	
	A102	US- 5,962,572	10/1999	Chen	
	A103	US- 5,991,077	11/1999	Carlson et al.	
	A104	US- 6,005,713	12/1999	Carlson et al.	
	A105	US- 6,023,312	2/2000	Hasegawa et al.	
	A106	US- 6,025,897	2/2000	Weber et al.	
	A107	US- 6,031,665	2/2000	Carlson et al.	
	A108	US- 6,080,467	6/2000	Weber et al.	

<b>*Examiner:</b>	<b>Date Considered:</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

<b>Substitute for form 1449A/PTO (modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Page 5 of 6	<b>Application Number</b>	10/614775
	<b>Filing Date</b>	July 7, 2003
	<b>First Named Inventor</b>	Allen, Richard C.
	<b>Art Unit</b>	
	<b>Examiner Name</b>	
	<b>Attorney Case Number</b>	52320US018

U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	(This field is not required) Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known) (Add Kind Code after patent No. when available)			
	A109	US- 6,088,067	7/2000	Willett et al.	
	A110	US- 6,101,032	8/2000	Wortman et al.	
	A111	US- 6,590,705	7/8/2003	Allen et al.	

Foreign Patent Documents							
Exam. Init.*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	(This field is not required) Name of Patentee or Applicant of Cited Document	(This field is not required) Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation (Check if yes)
		Ctry. Code	Number-KindCode (If known)				
	B1	EP	0 488 544 A1	6/1992			
	B2	EP	0 488 627 A2	6/1992			
	B3	EP	0 506 176 A1	9/1992			
	B4	EP	0 514 223 A1	11/1992			
	B5	EP	0 597 261 A1	5/1994			
	B6	EP	0 627 638 A1	12/1994			
	B7	EP	0 684 423 A2	11/1995			
	B8	JP	4-141603	5/1992			Abstract
	B9	JP	6001871	1/1994			Abstract
	B10	WO	WO 94/29765	12/1994			
	B11	WO	WO 95/17303	6/1995			
	B12	WO	WO 95/17691	6/1995			
	B13	WO	WO 95/17692	6/1995			
	B14	WO	WO 95/17699	6/1995			
	B15	WO	WO 95/27919	10/1995			
	B16	WO	WO 96/19347	6/1996			
	B17	WO	WO 96/31794	10/1996			
	B18	WO	WO 97/01440	1/1997			
	B19	WO	WO 97/01774	1/1997			
	B20	WO	WO 97/32226	9/1997			

<b>*Examiner:</b>	<b>Date Considered:</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

<b>Substitute for form 1449A/PTO (modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Page 6 of 6	<b>Application Number</b>	10/614775
	<b>Filing Date</b>	July 7, 2003
	<b>First Named Inventor</b>	Allen, Richard C.
	<b>Art Unit</b>	
	<b>Examiner Name</b>	
	<b>Attorney Case Number</b>	52320US018

OTHER DOCUMENTS			
Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Translation (Check if yes)
	C1	Alfrey et al., "Physical Optics of Iridescent Multilayered Plastic Films," <i>Polymer Engineering and Science</i> , Nov. 1969, Vol. 9, No. 6, pp. 400-404.	
	C2	Aphonin, O. A., "Optical Properties of Stretched Polymer Dispersed Liquid Crystal Films: Angle-Dependent Polarized Light Scattering," <i>Liquid Crystals</i> , Vol. 19, No. 4, 1995, pp. 469-480.	
	C3	Hodgkinson et al., "Effective Principal Refractive Indices and Column Angles for Periodic Stacks of Thin Birefringent Films," <i>J. Opt. Soc. Am. A.</i> , Vol. 10, No. 9, Sept. 1993, pp. 2065-2071.	
	C4	Kirk-Othmer Encyclopedia of Chemical Technology, 4 <sup>th</sup> Ed., Deuterium and Tritium to Elastomers, Polyethers, "Dyes, Anthraquinone," John Wiley & Sons, 1993, pp. 652-661.	
	C5	Land, E. H., "Some Aspects of the Development of Sheet Polarizers," 1951, Optical Society of America, Reprinted from <i>Journal of the Optical Society of America</i> , Vol. 41(12), Dec. 1951, pp. 957-963.	
	C6	Randord et al., Reflectivity of Iridescent Coextruded Multilayered Plastic Films, <i>Polymer Engineering and Science</i> , May 1973, Vol. 13, No. 3, pp. 216-221.	
	C7	Schrenk et al., Nanolayer polymeric optical films, <i>Tappi Journal</i> , pp. 169-174, June., 1992.	

<b>*Examiner:</b>	<b>Date Considered:</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	